

REMARKS

In response to the Office Action dated December 31, 2003, Applicants respectfully requests reconsideration.

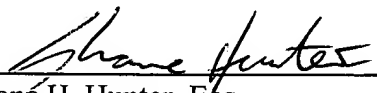
Claims 11, 18, and 19 stand rejected under 35 USC 112, second paragraph, as being indefinite for lack of antecedent basis. Applicants respectfully disagree. Claim 11 stands rejected as lacking antecedent basis for “the electrical device.” Claim 11, however, depends from claim 10, which recites “an electrical device” in line 1. Claim 18 stands rejected as lacking antecedent basis for “the gradient echo pulse [sequence].” Claim 18, however, depends from claim 17, which recites “a gradient echo pulse sequence” in lines 2-3. Claim 19 stands rejected as lacking antecedent basis for “the DANTE pulse sequence.” Claim 19, however, depends from claim 17, which recites “a DANTE pulse sequence” in line 3. Thus, Applicants believe that claims 11, 18, and 19 satisfy 35 USC 112, second paragraph.

Claims 1-10 and 12-40 stand rejected under 35 USC 102(b) in view of U.S. Patent No. 6,426,058 (Pines). Applicants respectfully assert that claims 1-10 and 12-40 are patentable in view of Pines. Pines discusses, as noted by the Examiner, MRI using hyperpolarized noble gas. Indeed, the Applicant noted that hyperpolarized noble gases could be used for MRI (Specification at page 3, lines 7-9). Independent claims 1 and 40, however, recite applying a magnetic field of a magnitude between about 0.0001 Tesla and about 0.1 Tesla to a subject for imaging the subject using magnetic resonance. Independent claims 27 and 39 recite apparatus configured to apply a magnetic field of a magnitude between about 0.0001 Tesla and about 0.1 Tesla to a subject and to process signals received from hyperpolarized gas in response to an RF pulse in a static magnetic field between about 0.0001 T and about 0.1 T. Pines, conversely, does not teach, disclose, or suggest applying a magnetic field of a magnitude between about 0.0001 Tesla and about 0.1 Tesla to a subject for imaging the subject using magnetic resonance. Nowhere does Pines suggest, let alone state, that magnetic fields of such low magnitude could be useful in MRI. Applicant respectfully asserts that the Examiner’s statement that Pines discloses “using a low field” without citation to any portion of Pines, does not support a rejection of independent claims 1, 27, 39, or 40 under 35 USC 102 or 103. For at least the same reasons, dependent claims 2-10, 12-26, and 28-38 that depend directly or indirectly from independent claims 1 or 27 are also patentable in view of Pines.

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Claim 11 stands rejected under 35 USC 103(a) in view of Pines and U.S. Patent No. 5,744,958 (Werne). The Examiner states that Werne teaches imaging a patient that has a pacemaker. Werne does not make up for the deficiencies of Pines, and the Examiner does not assert that it does. Thus, for at least the reasons discussed above with respect to claim 1, claim 11 (that depends from claim 1 through claim 10) is patentable in view of Pines in view of Werne.

Based on the foregoing, this application is believed to be in allowable condition, and a notice to that effect is respectfully requested. The Examiner is invited to call the Applicant's Attorney at the number provided below with any questions.

  
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